Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-12 (Canceled)

13. (Withdrawn) An isolated multifunctional germacrene-D synthase polypeptide comprising an amino acid sequence with at least 60% similarity to SEQ ID NO:2.

14. (Withdrawn) An isolated multifunctional germacrene-D synthase having the sequence of SEQ ID NO:2 or a fragment or variant thereof with multifunctional germacrene-D synthase activity.

15. (Withdrawn) An isolated multifunctional germacrene-D synthase as claimed in claim 14 wherein the amino acid sequence has at least 60% identity with the sequence of SEQ ID NO:2.

16. (Withdrawn) An isolated multifunctional germacrene-D synthase as claimed in claim 14 wherein the amino acid sequence has at least 90% identity with the sequence of SEQ ID NO:2.

17. (Withdrawn) An isolated multifunctional germacrene-D synthase as claimed in claim 14 wherein the amino acid sequence has at least 95% identity with the sequence of SEQ ID NO:2.

18. (Withdrawn) An isolated multifunctional germacrene-D synthase as claimed in claim 14 wherein the amino acid sequence is a mature sequence derived from SEQ ID NO:2.

Claims 19-23 (Canceled)

24. (Withdrawn) A genetic construct comprising in the 5'-3' direction a polynucleotide which hybridizes to a polynucleotide encoding a polypeptide of claim 13.

25. (Withdrawn) A genetic construct as claimed in claim 24 further comprising a promoter sequence.

26. (Withdrawn) A genetic construct as claimed in claim 25 which comprises a termination sequence.

27. (Withdrawn) A genetic construct as claimed in claim 26 wherein the sequence of the encoded polypeptide has the amino acid sequence of SEQ ID NO:2 or a fragment thereof with multifunctional germacrene-D activity.

28. (Canceled)

29. (Withdrawn) A host cell comprising a genetic construct of claim 19.

30. (Withdrawn) A transgenic plant cell which includes a genetic construct of claim 19.

31. (Withdrawn) A transgenic plant comprising a plant cell as claimed in claim 30.

32. (Withdrawn) A method of preparing germacrene-D, *delta*-cadinene, *gamma*-cadinene, *gamma*-muurolene, *gamma*-elemene, *delta*-elemene, elemol or germacrene B comprising the steps:

(a) culturing a cell which has been genetically modified with a polynucleotide of claim 1 to provide increased multifunctional germacrene-D synthase activity;

(b) providing the cell with farnesyl diphosphate or geranyl diphosphate if necessary; and

(c) separating the germacrene-D and/or *delta*-cadinene and/or *delta*-elemene and/or elemol and/or germacrene B, and/or *gamma*-cadinene, and/or *gamma*-muurolene, and/or *gamma*-elemene produced.

33. (Withdrawn) A method for modulating the Germacrene-D and/or *delta*-cadinene and/or germacrene B and or elemol and/or *delta*-elemene, and/or *gamma*-cadinene, and/or *gamma*-muurolene, and/or *gamma*-elemene production of a plant, the method comprising: increasing the or decreasing expression of multifunctional germacrene-D synthase wherein said increasing or decreasing is achieved by genetic modification to alter the expression of a gene encoding a multifunctional germacrene-D synthase, wherein the synthase comprises an amino acid sequence with at least 60% similarity to SEQ ID NO:2.

34. (Withdrawn) A method as claimed in claim 33 wherein the synthase comprises a synthase with the sequence of SEQ ID NO:2.

35. (Withdrawn) A method for modulating germacrene-D and/or *delta*-cadinene and/or germacrene B and/or elemol and/or *delta*-elemene, and/or *gamma*-cadinene, and/or *gamma*-muurolene, and/or *gamma*-elemene production in a plant, the method comprising:

(a) introducing into the plant, a genetic construct of claim 19; and

(b) transcriptionally expressing the polynucleotide in the plant.

36. (Withdrawn) A method for modulating germacrene-D and/or *delta*-cadinene and/or germacrene B and or elemol and/or *delta*-elemene, and/or *gamma*-cadinene, and/or *gamma*-muurolene, and/or *gamma*-elemene production in a plant, the method comprising:

(a) introducing into the plant, a DNA genetic construct of claim 19; and

(b) expressing the polypeptide in the plant.

37. (Withdrawn) A polynucleotide fragment of SEQ ID NO:1 comprising at least 15 contiguous nucleotides.

38. (Withdrawn) A method of selecting a plant with altered germacrene-D and/or *delta*-cadinene and/or germacrene B and or elemol and/or *delta*-elemene, and/or *gamma*-cadinene, and/or *gamma*-muurolene, and/or *gamma*-elemene content comprising the steps:

(a) contacting polynucleotides from at least one plant with at least one polynucleotide comprising at least 15 contiguous nucleotides of the polynucleotide of claim 1 to assess the expression of multifunctional germacrene-D synthase; and

(b) selecting a plant showing altered expression.

39. (Withdrawn) A method as claimed in claim 38 wherein the polynucleotide has at least 15 contiguous nucleotides from a sequence selected from SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:4 and SEQ ID NO:7 and the plant is a plant of the genus *Actinidia*.

40. (Withdrawn) A method as claimed in claim 38 wherein the plant is a plant of the genus *Vaccinium*.

41. (Withdrawn) A method for preparing a sesquiterpene comprising:

(a) obtaining a polypeptide as claimed in claim 13;

(b) incubating farnesyl diphosphate in the presence of the polypeptide; and

(c) separating the germacrene-D and/or *delta*-cadinene and/or germacrene B and or elemol and/or *delta*-elemene, and/or *gamma*-cadinene, and/or *gamma*-muurolene, and/or *gamma*-elemene produced.

42. (Withdrawn) A method as claimed in claim 41 wherein the products of step (b) are trapped in a matrix providing an acid environment.

43. (Withdrawn) A method as claimed in claim 42 wherein the matrix is a silica base matrix.

44. (Withdrawn) A method as claimed in claim 41 wherein the sesquiterpene is germacrene D.

45. (New) An isolated polynucleotide encoding a multifunctional germacrene-D synthase, wherein the nucleotide sequence is that of SEQ ID NO:1.

46. (New) A genetic construct comprising a polynucleotide of claim 45.

47. (New) A vector comprising a genetic construct of claim 46.

48. (New) An isolated polynucleotide encoding a multifunctional germacrene-D synthase having the amino acid sequence of SEQ ID NO:2.

49. (New) A genetic construct comprising an open reading frame polynucleotide of claim 48 encoding a polypeptide of SEQ ID NO:2.

50. (New) The genetic construct of claim 49 further comprising a promoter sequence.

51. (New) The genetic construct of claim 50 further comprising a termination sequence.

52. (New) A vector comprising a genetic construct of claim 49.